

## ABSTRACT

The present invention provides a method for producing a compound single crystal that can improve a growth rate and grow a large single crystal with high crystal uniformity in a short time, and a production apparatus used for the method. The compound single crystal is grown while stirring a material solution to create a flow from a gas-liquid interface in contact with a source gas toward the inside of the material solution. With this stirring, the source gas can be dissolved easily in the material solution, and supersaturation can be achieved in a short time, thus improving the growth rate of the compound single crystal. Moreover, the flow formed by the stirring goes from the gas-liquid interface where a source gas concentration is high to the inside of the material solution where the source gas concentration is low, so that dissolution of the source gas becomes uniform. Accordingly, it is possible not only to suppress nonuniform nucleation at the gas-liquid interface, but also to improve the quality of the compound single crystal produced.